



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/941,661	08/30/2001	Stephen N. Cozzette	112898.1000	7077

27160 7590 12/03/2004

PATENT ADMINSTRATOR  
KATTEN MUCHIN ZAVIS ROSENMAN  
525 WEST MONROE STREET  
SUITE 1600  
CHICAGO, IL 60661-3693

EXAMINER

CHIN, CHRISTOPHER L

ART UNIT PAPER NUMBER

1641

DATE MAILED: 12/03/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 09/941,661	Applicant(s) COZZETTE ET AL.	
	Examiner Christopher L. Chin	Art Unit 1641	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 15 October 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 128-151 is/are pending in the application.
- 4a) Of the above claim(s) 128-143 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 144-151 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 128-151 are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Election/Restrictions***

1. Applicant's election without traverse of Group II – claims 144-151 in the reply filed on 10/15/04 is acknowledged.

Claims 128-143 are withdrawn from consideration.

### ***Specification***

2. The disclosure is objected to because of the following informalities:
  - a.) The status of the parent application cited on page 1 of the specification needs to be updated.Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 144-149 are rejected under 35 U.S.C. 102(b) as being anticipated by Dattagupta et al.

Dattagupta et al (U.S. Patent 4,542,102) discloses a solid support which supports attached nucleic acid probes for hybridization assays. The solid support can be any solid which has reactive groups such as carboxyl, amino or the like (see cols. 1-3). The

Art Unit: 1641

nucleic acid can be RNA or DNA of short or long chain length, doubly or singly stranded (see col. 4, lines 20-22).

The claimed array of biolayers comprises one or more bioactive molecules. The manner in which the array is formed as set forth in lines 2-3 of claim 144 and in claim 145 will be treated as product-by-process limitations and thus, will not be accorded any patentable weight. The solid support of Dattagupta et al comprises one or more nucleic acid probes (i.e. bioactive molecules) attached to the solid support. While Dattagupta et al do not refer to their solid support as an "array of biolayers", their solid support is composed of the same components as the instantly claimed "array of biolayers" (i.e. one or more bioactive molecules) and thus anticipates the claimed invention.

5. Claims 144-147 and 150-151 are rejected under 35 U.S.C. 102(b) as being anticipated by Lowe et al.

Lowe et al (U.S. Patent 4,562,157) discloses a field effect transistor (FET) device having a biochemical ligand attached to the FET's gates (see col. 1, lines 5-9). The device can be in the form of a chip (see col. 3, line 30, to col. 4, line 26). A preferred device of the invention has a surface of silica and the biochemical ligand residue is attached to the surface with a linker having a photoactivatable function. Photoactivation is done through a mask or screen. The areas selected by means of the mask for photoactivation can take any appropriate form, depending on how many biochemical ligands are required to be attached (see col. 7, line 21, to col. 9, line 25). A preferred device is a multi-gated FET having one biochemical ligand attached to each gate and

Art Unit: 1641

therefore giving an independent signal from other ligands attached to other gates (see col. 9, lines 26-29). The biochemical ligand can be a protein, such as an enzyme, antigen, antibody, receptor protein, other binding protein, or lectin (see col. 9; lines 47-60).

The claimed array of biolayers comprises one or more bioactive molecules. The manner in which the array is formed as set forth in lines 2-3 of claim 144 and in claim 145 will be treated as product-by-process limitations and thus, will not be accorded any patentable weight. The device of Lowe et al comprises one or biochemical ligands (i.e. bioactive molecules) attached to a solid support. While Lowe et al do not refer to their device as an "array of biolayers", their device is composed of the same components as the instantly claimed "array of biolayers" (i.e. one or more bioactive molecules) and thus anticipates the claimed invention.


### ***Conclusion***

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher L. Chin whose telephone number is (571) 272-0815. The examiner can normally be reached on Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Long Le can be reached on (571) 272-0823. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 1641

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Christopher L. Chin  
Primary Examiner  
Art Unit 1641

11/21/04